

BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
<b>LightSquared Subsidiary LLC</b>	)	RM-11681
	)	
Petition for Rulemaking to Allocate the	)	
1675-1680 MHz Band for Terrestrial Mobile Use	)	

To: The Commission

**COMMENTS OF THE U.S. GPS INDUSTRY COUNCIL**

The U.S. GPS Industry Council (the “Council”), by its counsel and pursuant to Section 1.405(a) of the Commission’s Rules (47 C.F.R. § 1.405(a)), hereby comments on the Petition for Rulemaking filed on November 2, 2012 by LightSquared Subsidiary LLC (“LightSquared”).<sup>1</sup> In the Petition, LightSquared seeks to amend the U.S. Table of Frequency Allocations to add a primary allocation for terrestrial mobile use in the 1675-1680 MHz band, which is currently allocated for Meteorological Aids and Meteorological-Satellite applications, including critical weather monitoring and forecasting equipment deployed by the National Oceanic and Atmospheric Administration.<sup>2</sup> As articulated by LightSquared, the primary purpose of this additional allocation would be to provide “alternative downlink spectrum,” when coupled with spectrum at 1670-1675 MHz that already is available to LightSquared, in lieu of the 1545-1555 MHz band that is included in LightSquared’s current mobile-satellite service (“MSS”)

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<sup>1</sup> See Public Notice, Report No. 2967 (released November 9, 2012) (inviting statements file statements opposing or supporting the Petition).

<sup>2</sup> See LightSquared Subsidiary LLC Petition for Rulemaking to Allocate the 1675-1680 MHz Band for Terrestrial Mobile Use, RM-11681, filed November 2, 2012 (“Petition”).

network license.<sup>3</sup> Until additional technical information is presented, the Council is not in a position to support the Petition.

The Council's interest in this and related proceedings is well known to the Commission. LightSquared's proposals here and elsewhere remain premised, in part, on access to L-band spectrum adjacent to the Global Positioning System ("GPS") L1 band at 1559-1610 MHz to introduce a co-primary high-power terrestrial service in MSS spectrum. The Council's participation arises from the strong interest of its members in maintaining a suitable operating environment in this band for the critical positioning, location, safety-of-life, and timing applications used by millions of users of equipment in this band, both currently deployed and planned.<sup>4</sup>

The expansion of wireless broadband services, in particular, promises many significant economic and social benefits important to the public interest. However, the Council strongly believes that such expansion must not come at the expense of GPS, a system that is embedded in, and critical to, the fabric of American industry as well as to the daily commercial and social lives of ordinary Americans. Further, even proposals for rule changes related to expanded broadband services must include sufficient information and analyses to warrant the expenditure of valuable Commission and industry resources.

LightSquared's ultimate objective, as set forth in its Petition, is to provide itself with sufficient spectrum to offer terrestrial mobile broadband capacity using a combination of uplink bands at 1627.5-1637.5 MHz and 1646.7-1656.7 MHz, coupled with a ten megahertz downlink

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<sup>3</sup> Petition at 7.

<sup>4</sup> In considering proposed spectrum changes, the Council reminds the Commission that there are fundamental differences between a communications service and a position, navigation and timing

at 1670-1680 MHz. This proposal is part of multiple interconnected initiatives, including a separate petition for rulemaking dealing with the 1526-1536 MHz band,<sup>5</sup> through which LightSquared seeks to arrive at “a comprehensive solution that would permit LightSquared to commence operation of its new, competitive terrestrial broadband network, while also addressing issues raised by the GPS industry.”<sup>6</sup>

The Council does not object as a general matter to an inquiry assessing the possible addition of a terrestrial mobile allocation in the 1675-1680 MHz band; however, the ultimate case for such an allocation must be carefully evaluated and not influenced by the aims LightSquared is seeking to realize in this and the myriad other related proceedings it has initiated.<sup>7</sup> Taken as a whole, the series of initiatives that LightSquared has recently submitted to

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("PNT") service, such as GPS. Changes in spectrum use that increase interference to GPS affect the accurate positioning that GPS provides, and therefore jeopardize its essential function.

<sup>5</sup> See LightSquared Petition for Rulemaking Seeking the Development of Operating Parameters for Terrestrial Use of the 1526-1536 Portion of the L-band, RM-11683, filed September 28, 2012. This LightSquared petition is subject to a separate comment date, and the Council intends to file a statement concerning this element of LightSquared's proposal as well. See FCC Public Notice, "Petition for Rulemaking Filed," Rep. No. 2968 (released November 16, 2012) (supporting or opposing statements due December 17, 2012).

<sup>6</sup> Petition at 2.

<sup>7</sup> There is a vast array of ongoing proceedings that relate to LightSquared's efforts to leverage its MSS system license into an opportunity to deploy a national terrestrial broadband network, including pending determinations in IB Docket No. 11-109 (proposal to vacate LightSquared's authority to operate a terrestrial mobile service in the 1525-1559 MHz band), IB Docket Nos. 08-184 and 12-296 (continuing effect of build-out deadlines applicable to LightSquared's L-band MSS license), IB Docket No. 10-142 (policies and rules governing provision of terrestrial mobile service in the MSS bands), IB Docket No. 12-340 (proposals for modification of the LightSquared MSS/ATC license), RM-11683 (LightSquared's Petition for Rulemaking to modify allocations in the 1525-1559 MHz band), and multiple individual license modification applications (File Nos. SAT-MOD-20101118-00239, SAT-MOD-20120928-00160, SAT-MOD-20120928-00161 and SES-MOD-201210001-00872). Of particular relevance here is an additional "Request for a Limited Extension or Waiver of the Section 27.14 Substantial Service Deadline for the 1670-1675 MHz Band," upon which favorable action is necessary for LightSquared's proposal to access to the 1675-1680 MHz band to allow it overall access to a contiguous ten megahertz band covering 1670-1680 MHz. See ULS File No. 0005438821 (filed October 9, 2012) and Petition at 7 & n.21. The complexity and interrelatedness of these myriad proceedings, as well as adverse findings already in the record with respect to LightSquared's L-band service proposal in IB Docket No. 11-109 must be resolved.

the Commission require additional technical support which must be provided before the Commission initiates a rulemaking to consider adopting revised spectrum allocations and service rules.

Among the issues that would need to be addressed in considering a new co-primary terrestrial mobile allocation in the 1675-1680 MHz band are the potential for increased out-of-band emissions (“OOBE”) from more widely-deployed terrestrial transmitters and the potential for larger numbers of such transmitters to “overload” receivers in adjacent bands. While these concerns with respect to protection of GPS receivers operating in the 1559-1610 MHz band may be relatively less difficult to resolve for operations in the 1675-1680 MHz band than for the operations previously proposed in the GPS-adjacent band below 1559 MHz, considerations would nonetheless need to be given to demonstrating that no harmful interference will occur and to establishing any necessary operating limits to ensure that no harmful interference occurs to the existing, installed GPS user base.<sup>8</sup>

Fundamentally, any co-primary allocation to the mobile service at 1675-1680 MHz should be made only if the Commission is able to determine that such an allocation would be compatible with existing users of the band or that reasonable transition arrangements will be made; that sharing conditions could reliably be identified and imposed on the eventual non-

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The disposition of the 1675-1680 MHz band is only one of the issues that the FCC must address to resolve LightSquared’s Petition.

<sup>8</sup> See, e.g., *Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band (Order on Reconsideration)*, 27 FCC Rcd 13651, 13695 (¶ 108) (2012), citing *Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands*, 17 FCC Rcd 9980, 10034 (¶ 138) (2002) (“the technical and operating rules that the Commission adopts for a particular service are designed to prevent harmful interference (i.e., interference which seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service) to other services that operate in adjacent bands and to establish the RF environment for adjacent band services to coexist”).

federal licensee(s); and that the allocation would independently advance the public interest, convenience, and necessity. LightSquared's Petition does not address these issues, and, further, is contingent upon favorable Commission action in a multitude of other proceedings it has initiated or is subject to, including one where the Commission has tentatively concluded that LightSquared's conditional authorization to use the 1525-1559 MHz band to offer terrestrial mobile service should be vacated due to LightSquared's inability to resolve interference that would be caused by the planned terrestrial operations to GPS users and the absence of any basis upon which to conclude that these interference concerns are capable of resolution within any near-term timeframe.<sup>9</sup> These other proceedings are ongoing and their resolution on particular issues cannot be presumed in considering the instant Petition.

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For all of the forgoing reasons, the Council cannot support further Commission action on LightSquared's Petition for Rulemaking at this time.

Respectfully submitted,

**U.S. GPS INDUSTRY COUNCIL**

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<sup>9</sup> See FCC Public Notice, "International Bureau Invites Comment on NTIA Letter Regarding LightSquared Conditional Waiver," IB Docket No. 11-109, at 3 (released February 15, 2012).

**CERTIFICATE OF SERVICE**

I, Deborah Morris, hereby certify that on this 10<sup>th</sup> day of December, 2012, a copy of the foregoing Comments of the U.S. GPS Industry Council was provided by first-class U.S. Mail, postage prepaid, to the following:

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